

## WEST Search History

DATE: Friday, September 05, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
	<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>		
L6	L5 and phosphoramidite	21	L6
L5	L3 and (Fmoc or tboc)	31	L5
L4	L3 and (carbonate with protecting with gruop)	0	L4
L3	L2 and (nucleoside or nucleotide)	229	L3
L2	L1 and \$6peroxide	1257	L2
L1	silyl with protecting with group	4676	L1

END OF SEARCH HISTORY

(FILE 'HOME' ENTERED AT 10:49:18 ON 05 SEP 2003)

FILE 'CAPLUS, AGRICOLA, ALUMINIUM, ANABSTR, APOLLIT, AQUIRE, BABS,  
BIOCOMMERCE, BIOTECHNO, CABA, CAOLD, CBNB, CEABA-VTB, CEN, CERAB, CIN,  
COMPENDEX, CONFSCI, COPPERLIT, CORROSION, ENCOMPLIT2, FEDRIP, GENBANK,  
INSPEC, INSPHYS, INVESTEXT, IPA, JICST-EPLUS, ...' ENTERED AT 10:50:30 ON  
05 SEP 2003

L1	1651 S	SILYL PROTECTING GROUP OR T-BUTYL SILYL
L2	428 S	L1 AND ?PEROXIDE
L3	66 S	L2 AND (NUCLEOSIDE OR NUCLEOTIDE)
L4	10 S	L3 AND PHOSPHORAMIDITE

L4 ANSWER 1 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:190767 USPATFULL  
TITLE: Methods for modulation and inhibition of telomerase  
INVENTOR(S): Chen, Shih-Fong, San Antonio, TX, United States  
Maine, Ira, San Antonio, TX, United States  
Kerwin, Sean M., Round Rock, TX, United States  
Fletcher, Terace M., San Antonio, TX, United States  
Salazar, Miquel, Austin, TX, United States  
Mamiya, Blain, Austin, TX, United States  
Wajima, Makoto, San Antonio, TX, United States  
Windle, Bradford E., San Antonio, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas Systems,  
Austin, TX, United States (U.S. corporation)  
CTRC Research Foundation, San Antonio, TX, United  
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6593306	B1	20030715
APPLICATION INFO.:	US 1999-467932		19991221 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-879457, filed on 20 Jun 1997, now patented, Pat. No. US 6004939 Continuation-in-part of Ser. No. US 1996-657119, filed on 3 Jul 1996, now patented, Pat. No. US 6054442		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-927P	19950706 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Gitomer, Ralph	
ASSISTANT EXAMINER:	Crane, L. E.	
LEGAL REPRESENTATIVE:	Fulbright & Jaworski LLP	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 13 Drawing Page(s)	
LINE COUNT:	2629	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB It was found that normal human stem cells produce a regulated non-processive telomerase activity, while cancer cells produce a processive telomerase activity. **Nucleotide** analogs, such as 7-deaza-2'-deoxyquanosine-5'-triphosphate (7-deaza-dGTP) were found to be substrates for processive telomerase and incorporated into telomeric sequence. The incorporation of this **nucleotide** subsequently affected the processivity of telomerase, converting processive telomerase to non-processive telomerase. The incorporation of this **nucleotide** analogs was also found to inhibit formation of G-quartets by telomeric sequence. Other methods for converting cancer processive telomerase to the more benign non-processive telomerase include partially cleaving the telomerase RNA. The **nucleoside** analogs were found to be capable of a variety of activities including mediating allosteric-like inhibition of telomerase, premature termination and shortening of telomeric DNA, destabilization of telomeric structure and function and eventually cell death. Understanding the mechanisms of telomerase modulation by the 7-deaza-**nucleotides** has allowed the design of new telomerase inhibitors, modulators and agents for affecting telomere structure and function. These discoveries have application in the treatment of cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 2 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:322461 USPATFULL

TITLE: Nucleic acid labeling compounds  
INVENTOR(S): McGall, Glenn, Mountain View, CA, UNITED STATES  
Barone, Anthony D., San Jose, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002182625	A1	20021205
APPLICATION INFO.:	US 2002-97113	A1	20020312 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-275202P	20010312 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A., P.O. BOX 2938, MINNEAPOLIS, MN, 55402	
NUMBER OF CLAIMS:	81	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	1578	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Nucleic acid labeling compounds are disclosed. The compounds are synthesized by condensing a heterocyclic derivative with a cyclic group (e.g. a ribofuranose derivative). The labeling compounds are suitable for enzymatic attachment to a nucleic acid, either terminally or internally, to provide a mechanism of nucleic acid detection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 3 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:290906 USPATFULL  
TITLE: **Nucleosides** with antiviral and anticancer activity  
INVENTOR(S): Wagner, Carston R., St. Paul, MN, United States  
Griesgraber, George W., Eagan, MN, United States  
PATENT ASSIGNEE(S): Regents of the University of Minnesota, Minneapolis, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6475985	B1	20021105
	WO 9949873		19991007
APPLICATION INFO.:	US 2000-647206		20000927 (9)
	WO 1999-US6467		19990326
			20000927 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-79570P	19980327 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Russel, Jeffrey E.	
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.	
NUMBER OF CLAIMS:	101	
EXEMPLARY CLAIM:	75	
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 9 Drawing Page(s)	
LINE COUNT:	2634	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides **nucleosides** of formulae (I), (II), (V) and (VII) as described in the specification which possess antiviral and anticancer activity. Treatment of breast cancer is a preferred embodiment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 4 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2001:117164 USPATFULL  
TITLE: PNA synthons  
INVENTOR(S): Gildea, Brian D., Billerica, MA, United States  
Coull, James M., Westford, MA, United States  
PATENT ASSIGNEE(S): Perseptive Biosystems, Inc., Framingham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6265559	B1	20010724
APPLICATION INFO.:	US 2000-569564		20000512 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-910552, filed on 11 Aug 1997, now patented, Pat. No. US 6063569 Continuation of Ser. No. US 1995-480228, filed on 7 Jun 1995, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Riley, Jezia		
LEGAL REPRESENTATIVE:	Andrus, Alex		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	2463		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method is disclosed for the preparation of novel PNA synthons compatible with DNA synthetic reagents and instrumentation. Accordingly, the PNA synthons of this invention are particularly suitable for the preparation of PNA-DNA chimeras, among other oligomers. The PNA synthons are designed to have a protecting group strategy which is orthogonal and allows removal of the protecting groups under mild conditions. Generally, an acid labile protected backbone is coupled to a nucleobase side chain moiety to form the PNA synthon. A novel method for synthesizing the acid labile protected backbone also is described. In addition, novel compositions of matter are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 5 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2000:61386 USPATFULL  
TITLE: Methods for automated synthesis of PNA-DNA chimeras and compositions thereof  
INVENTOR(S): Gildea, Brian D., Billerica, MA, United States  
Coull, James M., Westford, MA, United States  
PATENT ASSIGNEE(S): PerSeptive Biosystems, Inc., Framingham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6063569		20000516
APPLICATION INFO.:	US 1997-910552		19970811 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-480228, filed on 7 Jun 1995, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Marschel, Ardin H.		
ASSISTANT EXAMINER:	Riley, Jezia		
LEGAL REPRESENTATIVE:	Testa, Hurwitz & Thibeault, LLP		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	2847		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method is disclosed for the preparation of novel PNA synthons compatible with DNA synthetic reagents and instrumentation. Accordingly, the PNA synthons of this invention are particularly suitable for the preparation of PNA-DNA chimeras, among other oligomers. The PNA synthons are designed to have a protecting group strategy which is orthogonal and allows removal of the protecting groups under mild conditions. Generally, an acid labile protected backbone is coupled to a nucleobase side chain moiety to form the PNA synthon. A novel method for synthesizing the acid labile protected backbone also is described. In addition, novel compositions of matter are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 6 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2000:50692 USPATFULL  
TITLE: Methods and compositions for modulation and inhibition of telomerase in vitro  
INVENTOR(S): Chen, Shih-Fong, San Antonio, TX, United States  
Maine, Ira, San Antonio, TX, United States  
Kerwin, Sean M., Round Rock, TX, United States  
Fletcher, Terrace M., San Antonio, TX, United States  
Salazar, Miguel, Austin, TX, United States  
Mamiya, Blain, Austin, TX, United States  
Windle, Bradford E., San Antonio, TX, United States  
Wajima, Makoto, San Antonio, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, University of Texas System, Austin, United States (U.S. corporation)  
CTRC Research Foundation, San Antonio, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6054442		20000425
APPLICATION INFO.:	US 1996-675119		19960703 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-927P	19950706 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Knode, Marian C.	
ASSISTANT EXAMINER:	Crane, L. Eric	
LEGAL REPRESENTATIVE:	Arnold, White & Durkee	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 22 Drawing Page(s)	
LINE COUNT:	2746	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB It was found that normal human stem cells produce a regulated non-processive telomerase activity, while cancer cells produce a processive telomerase activity. **Nucleotide** analogs, such as 7-deaza-2'-deoxyquanosine-5'-triphosphate (7-deaza-dGTP) were found to be substrates for processive telomerase and incorporated into telomeric sequence. The incorporation of this **nucleotide** subsequently affected the processivity of telomerase, converting processive telomerase to non-processive telomerase. The incorporation of this **nucleotide** analogs was also found to inhibit formation of G-quartets by telomeric sequence. Other methods for converting cancer processive telomerase to the more benign non-processive telomerase include partially cleaving the telomerase RNA. The **nucleoside** analogs were found to be capable of a variety of activities including mediating allosteric-like inhibition of telomerase, premature termination and shortening of telomeric DNA, destabilization of telomeric structure and function and eventually cell death.

Understanding the mechanisms of telomerase modulation by the 7-deaza-**nucleotides** has allowed the design of new telomerase inhibitors, modulators and agents for affecting telomere structure and function. These discoveries have application in the treatment of cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 7 OF 10 USPATFULL on STN

ACCESSION NUMBER: 1999:170792 USPATFULL  
TITLE: Orthoester reagents for use as protecting groups in oligonucleotide synthesis  
INVENTOR(S): Scaringe, Stephen, 5530 Stonewall Pl., Boulder, CO, United States 80303  
Caruthers, Marvin H., 2450 Cragmoor Rd., Boulder, CO, United States 80303

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6008400		19991228
APPLICATION INFO.:	US 1997-994824		19971219 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-488878,		filed on 9 Jun 1995
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Richter, Johann		
ASSISTANT EXAMINER:	Solola, Taofiq A.		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 16 Drawing Page(s)		
LINE COUNT:	1175		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Phosphoramidite** oligonucleotide synthesis is facilitated by the use of fluoride-labile 5' **silyl protecting groups**. RNA synthesis is improved by the use of 2 orthoester protecting groups. Reactions are conducted on a solid phase support and acidic deprotection conditions are avoided, as is the necessity of oxidizing the phosphite linkage between each coupling reaction.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 8 OF 10 USPATFULL on STN

ACCESSION NUMBER: 1999:166979 USPATFULL  
TITLE: Methods for modulation and inhibition of telomerase  
INVENTOR(S): Chen, Shih-Fong, San Antonio, TX, United States  
Maine, Ira, San Antonio, TX, United States  
Kerwin, Sean M., Round Rock, TX, United States  
Fletcher, Terrace M., San Antonio, TX, United States  
Salazar, Miquel, Austin, TX, United States  
Mamiya, Blain, Austin, TX, United States  
Wajima, Makoto, San Antonio, TX, United States  
Windle, Bradford E., San Antonio, TX, United States  
PATENT ASSIGNEE(S): CTRC Research Foundation Board of Regents, San Antonio, TX, United States (U.S. corporation)  
The University of Texas System, Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6004939		19991221
APPLICATION INFO.:	US 1997-879457		19970620 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-675119,		filed on 3 Jul 1996
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

PRIMARY EXAMINER: Knode, Marian  
ASSISTANT EXAMINER: Crane, L. Eric  
LEGAL REPRESENTATIVE: Arnold, White & Durkee  
NUMBER OF CLAIMS: 16  
EXEMPLARY CLAIM: 1,2,3  
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 9 Drawing Page(s)  
LINE COUNT: 2807

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB It was found that normal human stem cells produce a regulated non-processive telomerase activity, while cancer cells produce a processive telomerase activity. **Nucleotide** analogs, such as 7-deaza-2'-deoxyguanosine-5'-triphosphate (7-deaza-dGTP) were found to be substrates for processive telomerase and incorporated into telomeric sequence. The incorporation of this **nucleotide** subsequently affected the processivity of telomerase, converting processive telomerase to non-processive telomerase. The incorporation of this **nucleotide** analogs was also found to inhibit formation of G-quartets by telomeric sequence. Other methods for converting cancer processive telomerase to the more benign non-processive telomerase include partially cleaving the telomerase RNA. The **nucleoside** analogs were found to be capable of a variety of activities including mediating allosteric-like inhibition of telomerase, premature termination and shortening of telomeric DNA, destabilization of telomeric structure and function and eventually cell death. Understanding the mechanisms of telomerase modulation by the 7-deazanucleotides has allowed the design of new telomerase inhibitors, modulators and agents for affecting telomere structure and function. These discoveries have application in the treatment of cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 9 OF 10 USPATFULL on STN  
ACCESSION NUMBER: 1999:160220 USPATFULL  
TITLE: Polynucleotide purification method  
INVENTOR(S): Fearon, Karen L., Lafayette, CA, United States  
Boyd, Victoria Lee, San Carlos, CA, United States  
PATENT ASSIGNEE(S): The Perkin-Elmer Corporation, Foster, CA, United States  
(U.S. corporation)  
Lynx Therapeutics, Inc., Hayward, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5998604		19991207
APPLICATION INFO.:	US 1997-929620		19970915 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Crane, L. Eric		
LEGAL REPRESENTATIVE:	Gorthey, LeeAnnDehlinger & Associates		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	853		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of purifying a hydrophobically substituted polynucleotide by reverse phase HPLC is described. The hydrophobic substituent may be removed from the polynucleotide under non-acidic conditions; the purification method is thus especially useful for acid sensitive polynucleotide analogs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 10 OF 10 USPATFULL on STN  
ACCESSION NUMBER: 1999:40551 USPATFULL



TITLE: Orthoester protecting groups in RNA synthesis  
INVENTOR(S): Scaringe, Stephen, Boulder, CO, United States  
Caruthers, Marvin H., Boulder, CO, United States  
PATENT ASSIGNEE(S): The Regents of The University of Colorado, Boulder, CO,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5889136		19990330
APPLICATION INFO.:	US 1995-488878		19950609 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kunz, Gary L.		
NUMBER OF CLAIMS:	23		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 16 Drawing Page(s)		
LINE COUNT:	1267		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Phosphoramidite** oligonucleotide synthesis is facilitated by the use of fluoride-labile 5' **silyl protecting groups**. RNA synthesis is improved by the use of 2' orthoester protecting groups. Reactions are conducted on a solid phase support, and acidic deprotection conditions are avoided, as is the necessity of oxidizing the phosphite linkage between each coupling reaction.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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